

AMENDMENTS TO THE CLAIMS

Listing of Claims

Please amend the claims as follows:

1. (Original) A film transport system comprising:
a film transport path for transporting film;
an input drive assembly for advancing film through the film transport path;
an output drive assembly for advancing film out of the film transport path;
an aperture positioned in the film transport path;
at least one registration pin capable of engaging at least one perforation in the film to secure a portion of the film in the aperture, wherein the at least one registration pin is capable of retracting to a non-engaging position; and
a controller for controlling the retraction of the at least one registration pin.
2. (Original) The film transport system of claim 1, wherein the input drive assembly comprises a variable speed drive assembly.
3. (Original) The film transport system of claim 2, wherein the variable speed drive assembly comprises at least one variable speed feed input sprocket, wherein the variable speed feed input sprocket is capable of controlling a speed of the film towards the at least one registration pin.

4. (Original) The film transport system of claim 1, wherein the input drive assembly comprises at least one input feed sprocket and the output drive assembly comprises at least one output sprocket.
5. (Original) The film transport system of claim 1, wherein the film transport system is used in a projection system.
6. (Original) The film transport system of claim 1, further comprising a rotor having at least one rotor gap, wherein the film forms a film loop in the rotor gap and the rotor gap is capable of moving the film loop.
7. (Original) The film transport system of claim 3, wherein the variable speed input sprocket is controlled by the controller.
8. (Original) The film transport system of claim 1, wherein when the at least one registration pin retracts to facilitate auto-loading of the film in the film transport system.
9. (Original) The film transport system of claim 6, wherein the at least one registration pin is retracted and the film loop collapses to allow movement of the film in the reverse direction to rewind the film back through the film transport system.

10. (Currently Amended) A film transport system comprising:

a film transport path for transporting film;

an input drive assembly for advancing film through the film transport path, wherein the input drive assembly comprises (i) a variable speed drive assembly, (ii) a variable speed sprocket, and (iii) a constant speed sprocket~~and at least two sprockets;~~

an output drive assembly for advancing film out of the film transport path;

an aperture positioned in the film transport path;

at least one registration pin capable of engaging at least one perforation in the film to secure a portion of the film in the aperture;

a rotor having at least one rotor gap, wherein the film forms a film loop in the rotor gap and the rotor gap is capable of moving the film loop to engage and disengage the film from the at least one registration pin; ~~and~~

a controller for controlling a speed profile of the variable speed sprocket drive assembly to control a speed at which the film is fed into the rotor gap to form the film loop; and

a loop gap between the variable speed sprocket and the constant speed sprocket that is sized based on a difference in film speed between the variable speed sprocket and the constant speed sprocket.

11. (Original) The film transport system of claim 10, wherein the at least one registration pin is capable of retracting to a non-engaging position.

12. (Canceled)

13. (Currently Amended) The film transport system of claim 10, wherein ~~the~~ at least one of the variable speed sprocket or the constant speed sprocket is an two sprockets ~~comprise at least one~~ input feed sprocket and the output drive assembly comprises at least one output sprocket.

14. (Original) The film transport system of claim 10, wherein the speed profile of the variable input drive assembly is capable of being adjusted during operation of the film transport system.

15. (Currently Amended) The film transport system of claim 14, wherein the speed profile of the variable input drive assembly is configured to be changed to accommodate a changing condition of the film.

16. (Original) The film transport system of claim 10, wherein the film transport system is capable of transporting film at different frame rates.

17. (Original) The film transport system of claim 10, wherein the film transport system is capable of transporting a plurality of film formats.

18. (Original) The film transport system of claim 10, wherein a film frame position in the aperture is capable of being adjusted by at least one film perforation increment during operation of the film transport system.

19. (Currently Amended) The film transport system of claim 10, further comprising an air jet system comprising:

an airflow tip for directing air;

at least one air guide surface;

a valve for controlling the flow of air through the air flow tip, wherein the air from the air flow tip is directed at least in part by the air guide surface onto the film to prevent at least in part longitudinal bending of the film during the formation of the film loop.

20. (Original) The film transport system of claim 10, wherein the rotor has a radius that is less than a curvature of a film support surface of the aperture and a center of the rotor is in line with an aperture optical axis center line, and wherein the at least one registration pin extends beyond an outer peripheral surface of the rotor.

21. (Currently Amended) A method of auto loading film in a film transport system, comprising:

engaging the film with an input drive assembly;

threading film through a film transport path automatically by the input drive assembly;

receiving the film at an output drive assembly;

~~threading the film onto a film take-up system; and~~

automatically engaging at least one perforation of the film by at least one registration pin extending into the film transport path from a retracted position with respect to the film transport path; and

~~automatically creating at least one film loop by the input drive assembly and engaging at least one registration pin into at least one film perforation.~~

22. (Original) The method of claim 21, further comprising automatically positioning a film start frame into an aperture of the film transport system.

23. (Currently Amended) A film transport system comprising:

a film transport path for transporting film;

an input drive assembly for advancing film through the film transport path, wherein the input drive assembly comprises (i) a variable speed input drive assembly, (ii) a variable speed sprocket, and (iii) a constant speed sprocket ~~and at least two sprockets;~~

an output drive assembly for advancing film out of the film transport path;

an aperture positioned in the film transport path;

a film loop transport in which a loop of film is capable of forming, the film loop transport being configured for moving the loop of film;

at least one registration pin capable of engaging at least one perforation in the film to secure a portion of the film in the aperture; and

a controller for controlling a speed profile of the variable speed sprocket drive assembly to control a speed at which the film is fed into the film loop transport; and

a loop gap between the variable speed sprocket and the constant speed sprocket that is sized based on a difference in film speed between the variable speed sprocket and the constant speed sprocket.

24. (Currently Amended) The film transport system of claim 23, wherein the film loop transport is a rotor with at least one rotor gap.

25. (Currently Amended) The film transport system of claim 23, wherein the film loop transport is a linear loop transport.

26. (New) The film transport system of claim 23, wherein the controller is configured for reducing a force with which the at least one perforation in the film impacts the least one registration pin.

27. (New) The film transport system of claim 10, wherein the controller is configured for reducing a force with which the at least one perforation in the film impacts the least one registration pin.